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ABSTRACT

Project TALENT, a 20 year, national longitudinal study of the development of youth in to adults, is described. Begun in 1960, only the 5 year follow-up data is currently available. As part of the overall project, an exploratory study is in progress to examine factors which might influence the development of ideal or desired family size preferences and, after marriage, the onset of childbearing and the spacing of children. Early findings tend to support generally-held ideas about these factors. Girls who marry early and have more children by 5 years after high school tend to: (1) to be less intelligent; (2) come from lower socioeconomic status homes; (3) date and go steady more often; (4) have parents with lower levels of education; and (5) expect to marry earlier and obtain less education that those who marry later. Overall, the correlation coefficients are low, suggesting the inadequacy of utilizing psychological and social factors for understanding what determines a girl's age at marriage as well as the size of her family. (TL)

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For the past eleven years Project TALENT has been collecting information on a large sample of persons who were high school students in 1960. The major focus of the project has been to study the development of these youth into adults and the factors which influence this development. Because of the large number of variables about which information has been collected, the Project TALENT data base represents a unique opportunity for the study of topics related to marriage and family development.

A brief introduction to Project TALENT is necessary to provide a background for what will follow. In the spring of 1960 a probability sample of approximately five percent of the public, private and parochial high schools in the United States agreed to participate in a national longitudinal study of the development of youth into adults. This study was called Project TALENT. The 400,000 students in grades 9 through 12 attending the one thousand, two hundred twenty-five selected schools were administered a two-day battery of specially constructed tests and inventories. This battery consisted of maximum performance measures, typical behavior measures, and questionnaire items.

In addition to the original testing in 1960, a series of follow-up studies has been completed or is planned for one, five, eleven, and twenty years after each of the classes in the sample graduated from high

school. At the present time all of the five year follow-ups have been completed. Associated with each of the follow-up surveys has been the selection and field interviewing of a five percent random sample of the nonrespondents. Appropriate weights for members of these nonrespondent groups, when combined with the regular probability weights for all subjects, permit correction for nonrespondent bias in the estimation of national population distributions for the high school classes of 1960, 61, 62, and 63.

Among the data collected in 1960 were aptitude scores, personality variable scores, socioeconomic status variables, information on the student's background, his family, and his expectations for the future. Also available is follow-up information collected five years after high school on almost 130,000 of these same persons. The time spans between the initial data collection and the follow-ups range from five to eight years for the different grades. As a part of the follow-up, data were collected on such variables as marital status and date of marriage, number of children and age of oldest child.

An exploratory study is being carried out to examine a number of factors which might influence such variables as the development of ideal or desired family size preferences, and, after marriage, the onset of childbearing and the spacing of children. This study differs from previous studies in two important ways: the number of variables about which data are available is considerably larger than has been the case elsewhere; and the predictor data were collected several years before the criterion data, so the problem of possible contamination is eliminated.

This paper deals with some early findings of this study, specifically with an exploration of the relationships between various variables collected

in 1960 and the age of marriage and number of children for those married five years after high school. The sample consisted of the 12,065 females who had been high school seniors in 1960 and who indicated, on a follow-up questionnaire completed in 1965, that they were or had been married. Three dependent variables were actually used: (1) the age at which the respondent married, (2) whether the respondent had children (yes=1, no=0), and (3) the actual number of children.

A total of thirty-four independent variables, divided into six categories, were included. A short description of each variable is included in Table 1 along with the first order correlation of each of these variables with the three criterion variables. Since complete data was not available for all cases, a "missing data" correlation program which used all available data was employed for the calculations. The actual number of cases available for a given correlation varied from 11,183 to the full 12,065. A check of the complete intercorrelation matrix eigenvalues indicated that the "missing data" matrix is consistent and non-singular.

An examination of Table 1 indicates that virtually all the correlations are significant. With a minimum case base of 11,183, any correlation equal to or greater than .019 is significant at the 5% level and any coefficient equal to or greater than .025 is significant at the 1% level. While most of the relationships are significant, few of them are of sufficient size to make them particularly meaningful, at least in a predictive sense.

However, the direction of the relationships for a number of independent variables are quite interesting, even though their size is small. For example: we find, as expected, that being Catholic (Variable 4) is positively related to childbearing, yet we also find that Catholic girls tend

to be older than non-Catholics when they marry. We also find that while the number of women's magazines (such as Ladies' Home Journal, McCall's, Redbook, etc.) in the home (Variable 9) is positively related to the age at which the girls get married and negatively related to childbearing, the number of movie or love magazines (Variable 10) is negatively related to age at marriage and positively related to childbearing.

The direction of the relationships with the various socioeconomic status indicators (Variables 1, 2, 5, 6, 8, and 11) is as expected. Girls from higher status families marry later, are less likely to have children, and when they do they are likely to have fewer. Obviously these relationships are not independent since in this sample girls who married younger have been married longer and have thus had more time to have children. This relationship is, however, far from perfect.

Considering the ten personality scales (Variables 14 through 23) as a whole, one gains the impression that personality traits, at least as measured by these scales, are even less strongly related to marriage and childbearing than most of the other variables. The cognitive scales are much more highly related. There are two possible explanations for the low values of the personality variable correlation coefficients: either these variables are really not related to marriage and childbearing, or they are related and the scales do not measure the traits they purport to measure. With a study of this sort it is obviously not possible to determine which is the case. However, I tend to support the latter theory.

With the exception of "average number of dates per week" and "number of times gone steady" (Variables 27 and 28), high school activities do not seem to be strongly related to the dependent variables. "Strong" is being

used here as a relative rather than an absolute term. One of the variables which I thought would exhibit fairly strong relationships, "age at first date" (Variable 26), turned out to have virtually zero correlations. I frankly am surprised that girls who started dating early didn't marry early.

Among the 33 independent variables collected in 1960, the two best predictors are found among the expectations of the girls. "Age expect to marry" (Variable 30) has the highest correlation with "age at marriage" and "Amount of education expected" (Variable 32) has the strongest correlation with "number of children." Since many families are not complete by five years after high school it is natural that "number of children expected" does not have a strong correlation with "number of children."

Variable 34, "attended college," was in fact collected during the 1965 five-year follow-up survey and therefore isn't an independent variable. However, it is included because of the fact that it exhibits stronger correlations with each of the dependent variables than any of the other variables. Females who go to college tend to marry later and to have fewer children by five years after high school.

The last row of the table contains multiple correlations of the dependent variables with 32 of the 1960 variables. Variable 13 was omitted because it overlaps Variable 12 significantly.

Overall, these findings tend to support generally held ideas about the factors which influence marriage and childbearing. Girls who marry early and have more children by five years after high school tend to: (1) be less intelligent; (2) come from lower socioeconomic status families; (3) date and go steady more often; (4) have parents with less education; and

(5) expect to marry earlier and obtain less education. The rather surprising finding, aside from the fact that girls who start to date early do not marry early, is the overall low values of the correlation coefficients.

This finding suggests that the traditional trait and factor approach often preferred by psychologists is not the most promising approach to understanding what determines the age at which a girl will marry and, after marriage, the size of her family. Moreover, traditional sociological measures such as race, religion, and socioeconomic status did little if any "better" than the psychological measures. This suggests in turn that the future success of efforts to apply psychology to the problem of excessive population growth will depend on better ideas and theory rather than on more massive data collection.

One obvious influence on marriage and childbearing, the husband, has not been considered in this paper. His influence has not been considered because data is not available on the spouses of the Project TALENT sample.

TABLE 1

FIRST ORDER CORRELATION COEFFICIENTS

	1960 Variable	Age at Marriage	Have Children	Number of Children
	Background Characteristics of Respondents			
1	Family income	.054**	-.070**	-.076**
2	Family socioeconomic status	.062**	-.180**	-.203**
3	Race (1=white, 0=non-white)	.010	-.041**	-.070**
4	Religion (1=Catholic, 0=non-Catholic)	.059**	.075**	.089**
5	Father's education	.090**	-.149**	-.153**
6	Mother's education	.075**	-.122**	-.130**
7	Number of children in family	-.042**	.110**	.151**
8	Number of books in home	.071**	-.108**	-.116**
9	Number of women's magazines in home	.049**	-.026**	-.034**
10	Number of movie, love magazines in home	-.041**	.107**	.109**
11	How "well-off" is family	.039**	-.057**	-.073**
	Cognitive Characteristics of Respondents			
12	IQ composite score	.087**	-.169**	-.184**
13	Academic aptitude composite score	.124**	-.210**	-.225**
	Personality Characteristics of Respondents			
14	Sociability	-.002	-.001	-.001
15	Social sensitivity	.019*	-.042**	-.048**
16	Impulsiveness	.005	.003	.004
17	Vigor	.027**	-.037**	-.037**
18	Calmness	.037**	-.057**	-.063**
19	Tidiness	.011	-.014	-.031**
20	Culture	.040**	-.086**	-.098**
21	Leadership	.035**	-.086**	-.091**
22	Self-confidence	.013	-.038**	-.042**
23	Mature personality	.033**	-.085**	-.086**
	Activities of Respondents			
24	Frequency of sewing, knitting, etc.	.006	.005	.005
25	Frequency of cooking	-.023*	.073**	.087**
26	Age at first date	.017	.007	.021*
27	Average number of dates per week	-.126**	.162**	.177**
28	Number of times gone steady	-.084**	.148**	.161**
29	Frequency of reading love stories	-.031**	.091**	.084**
	Expectations of Respondents			
30	Age expect to marry	.173**	-.194**	-.233**
31	Number of children expected	.044**	.051**	.075**
32	Amount of education expected	.145**	-.244**	-.263**
33	How "well-off" expect to be	.018	.045**	.062**
	College Attendance			
34	Attended college (Yes=1, No=0)†	.183**	-.306**	-.322**
	Multiple Correlation#	.245	.332	.378

**Significant at .01 level
*Significant at .05 level
#Variables 13 and 34 not included
†This data was collected during the 5-year follow-up survey (1965).